

In Response

To THE EDITOR:

We want to thank Dr. Li et al (1) for their interest in our article. Dr. Li et al (1) have raised some queries about our new approach, the ultrasound-guided trans-incisional quadratus lumborum block (TiQLB) in open renal surgery, that we are delighted to answer them.

Firstly, they described our approach as a transmuscular QLB. However, the needle pathway in TiQLB does not pass through any muscle, neither the quadratus lumborum muscle (QLM) nor the psoas major muscle (PMM). As the surgical field is open, the needle directly pierces the anterior thoracolumbar fascia in the plane between QLM and PMM under direct visualization and the distribution of the local anesthetic (LA) was confirmed by ultrasonography (Fig. 1).

Li et al (1) argued that anterior QLB during nephrectomy might be associated with failure of the spread of LA into the lower thoracic paravertebral space due to the surgical damage of the arcuate ligaments and the surrounding fascia during the procedure especially laparoscopic retroperitoneal nephrectomy. We agree that intact arcuate ligaments are essential for the cranial spread of LA to the lower thoracic paravertebral space, as was shown by some studies (2,3). Using the medial

arcuate ligament (MAL) as a landmark for the renal artery during partial or total nephrectomy under retroperitoneal laparoscopy could be a necessary step due to the narrow, unfamiliar retroperitoneal space (4). In our study (5), we did only open nephrectomy and not laparoscopic retroperitoneal nephrectomy. So we did not need this landmark, and thus we maintained the MAL. Besides, in the study done by Cai et al (4), the MAL was not deliberately dissected in all laparoscopic retroperitoneal nephrectomies and was just used as a landmark. In addition to the cephalad spread of the LA, the anterior QLB in a cadaveric study with a dye, revealed dyed lumbar nerve roots and sometimes nerves within the transversus abdominis plane (TAP) region, which may contribute further to the analgesic effects of the QLB even if the thoracolumbar fascia was dissected.

Secondly, Li et al (1) mentioned that we didn't report the sensory level of TiQLB, which can enhance the reliability of our results. The main aim of our study was to compare the addition of dexmedetomidine to bupivacaine versus bupivacaine alone for TiQLB in combination with general anesthesia regarding postoperative analgesia and adverse effects besides the description

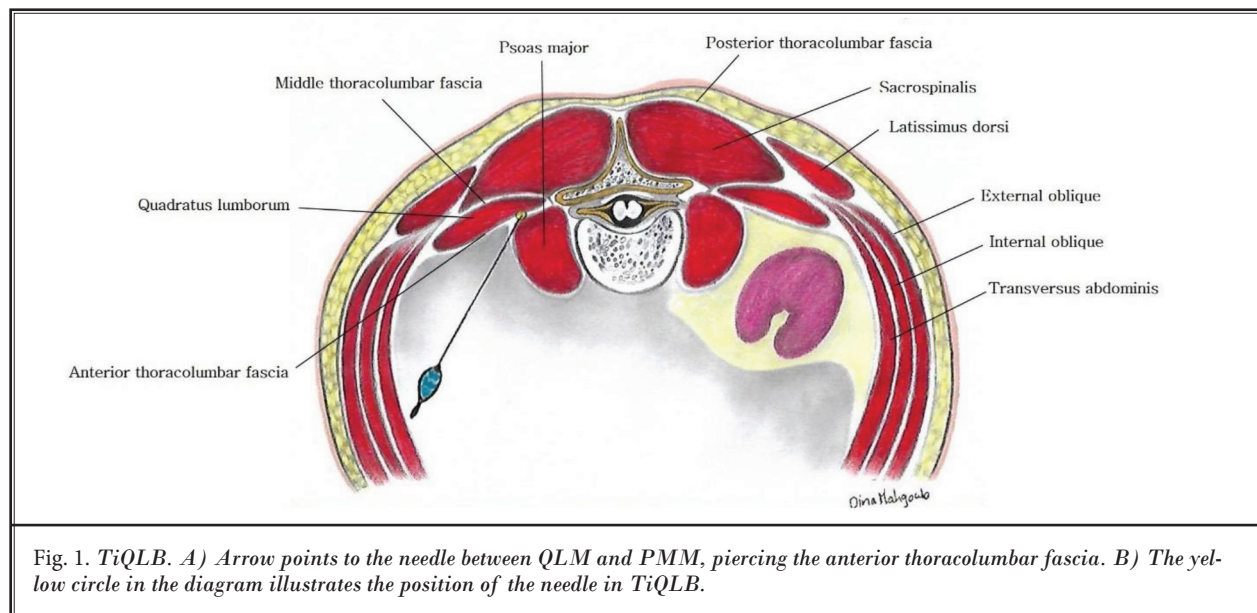


Fig. 1. TiQLB. A) Arrow points to the needle between QLM and PMM, piercing the anterior thoracolumbar fascia. B) The yellow circle in the diagram illustrates the position of the needle in TiQLB.

of the ultrasound-guided TiQLB. Hence, we focused mainly on investigating postoperative pain management among the studied groups. However, studying the sensory levels of TiQLB could be a valuable addition to our future studies.

Thirdly, Dr. Li et al (1) asked for clear images to support our TiQLB approach. Unfortunately, as most of the elective cases were canceled in our center due to the COVID-19 pandemic, we are unable currently to supply the journal with more images. However, we labeled the ultrasound image of TiQLB as required by Dr. Li et al (1) (Fig. 2).

Despite all these concerns, we still believe that ultrasound-guided TiQLB is a feasible approach during open renal surgeries and should be considered as an additional postoperative pain management modality as evident from the results of our study.

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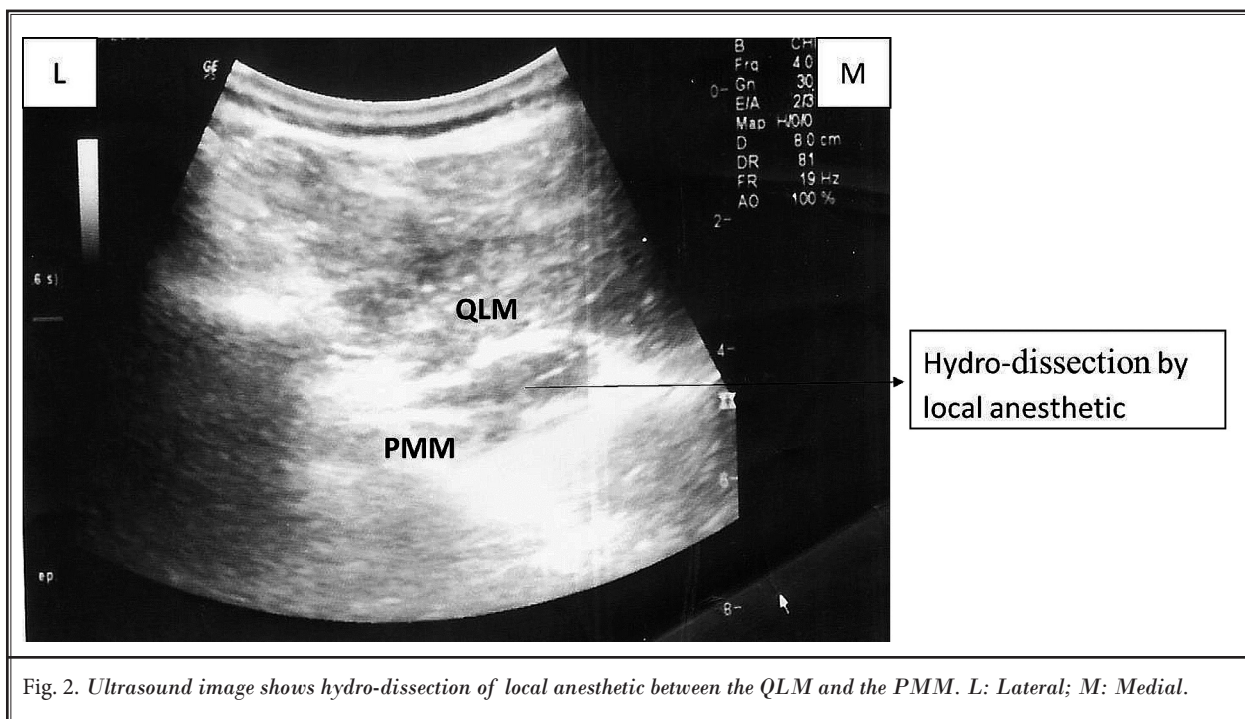


Fig. 2. Ultrasound image shows hydro-dissection of local anesthetic between the QLM and the PMM. L: Lateral; M: Medial.

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